CLAIMS

1. A process for making a mould piece having a main curved surface bearing an utilitary microstructure which comprises :

(a) providing a master piece (1) having a flat main surface bearing a utilitary microstructure (2) ;

(b) transferring said utilitary microstructure (2) from the master piece main surface to a main surface of a flat cured elastomeric film (5) ;

(c) recovering the flat cured elastomeric film (5) having a main surface (6) bearing a replica of said utilitary microstructure (2) ;

(d) providing a master article (8) having a main curved surface (9) to be replicated ;

(e) applying a curable coating composition (10) either :

- on the main curved surface (9) of the master article (8), or
- on the main surface (6) bearing the replica of said utilitary microstructure (2) of the flat cured elastomeric film (5), or
- on both main surfaces.

(f) placing the main surface (6) bearing the replica of said utility microstructure (2) of the flat cured elastomeric film (5) and the main curved surface (9) of the master article (8) in front of each other ;

(g) pressing said cured elastomeric film (5) and said master article (8) against each other so as to conform the overall shape of said cured elastomeric film (5) to the curved shape of the main surface (9) of the master article (8) and to spread over the curable coating composition (10) between the curved main surface (9) of the master article (8) and the main surface (6) bearing the replica of the said utilitary microstructure (2) of the cured elastomeric film (5) ;

(h) curing the coating composition (10) ;

(i) removing the cured elastomeric film (5) and recovering a hard coated article having a main curved surface (9) coated with a hard

coating (10) having an exposed main surface (11) bearing a transferred utilitary microstructure ;

(j) depositing a layer of a metal or a metallic alloy (12) on said exposed main surface (11) of the hard coating of the master article (8) ; and

(k) recovering said metal or metallic alloy layer to obtain a mould piece (13) having a curved main surface (14) bearing a replica of said transferred utilitary microstructure.

2. The process of claim 1, wherein said master piece (1) is made of a metal or metallic alloy piece.

3. The process of claim 2, wherein said metal is nickel.

4. The process according to anyone of claims 1 to 3, wherein transfer step (b) is performed by pouring over the main flat surface bearing the utilitary microstructure of the master piece (1) a liquid curable elastomeric composition and curing it.

5. The process of claim 4, wherein curing of the elastomeric composition is performed by heat curing.

6. The process according to anyone of claims 1 to 5, wherein the flat cured elastomeric film is made of polysiloxane, preferably a polydimethylsiloxane.

7. The process according to anyone of claims 1 to 6, wherein the flat cured elastomeric film has a thickness ranging from 1 to 2 mm.

8. The process according to anyone of claims 1 to 7, wherein during pressing step (g) the flat cured elastomeric film is held by a peripheral frame.

9. The process according to anyone of claims 1 to 8, wherein curable coating composition comprises monomers and/or oligomers of (meth)acrylate compounds.

10. The process according to anyone of claims 1 to 9, wherein curing of the curable coating composition is performed through UV irradiation.

11. The process according to anyone of claims 1 to 10, wherein the utilitary microstructure is a hologram or a microstructure having antireflective properties.

12. The process according to anyone of claims 1 to 11, wherein the utilitary microstructure is a periodically repetitive structure having a period of 250 nm.

13. The process according to anyone of claims 1 to 12, wherein deposition step (j) comprises electrodepositing a metal or a metallic alloy.

14. The process according to anyone of claims 1 to 13, wherein the mould piece is made of nickel.

15. The process according to anyone of claims 1 to 14, wherein the master article is an ophthalmic lens whose main curved surface is a spherical surface or a presbyopia correcting surface.